

## COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and

I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **MODULATION OF MOLECULAR INTERACTION SITES ON RNA AND OTHER BIOMOLECULES** the specification of which:

( ) is attached hereto.

(XX) was filed on May 12, 1998 as Application Serial No. 09/076,404.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to the patentability of this application in accordance with 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of any application on which priority is claimed:

| Country | Number | Date Filed | Priority Claimed |
|---------|--------|------------|------------------|
| _____   | _____  | _____      | _____            |
| _____   | _____  | _____      | _____            |
| _____   | _____  | _____      | _____            |

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

| Application Serial No. | Filing Date | Status (patented,<br>pending) |
|------------------------|-------------|-------------------------------|
| _____                  | _____       | _____                         |
| _____                  | _____       | _____                         |
| _____                  | _____       | _____                         |

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: **John W. Caldwell and Paul K. Legaard**, Registration Nos. **28,937** and **38,534** of the firm of **WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP**, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, and **Herb Boswell and Laurel Bernstein**, Registration Nos. **27,311** and **37,280**, of **ISIS Pharmaceuticals**, 2292 Faraday Avenue, Carlsbad, California 92008.

Address all telephone calls and correspondence to:

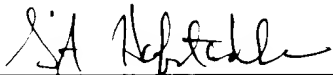
**Paul K. Legaard**  
**WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP**  
One Liberty Place - 46th Floor  
Philadelphia, PA 19103  
Telephone No. **215-568-3100**.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the

United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

|   |   |                               |         |
|---|---|-------------------------------|---------|
| 1   | Full Name:  | Inventor's Signature:         | Date:   |
|   | David J. Ecker  | David J. Ecker                | 8/29/98 |
|   | Residence:<br>1041 Saxony Road<br>Encinitas, California 92024   | Citizenship:<br>United States |         |
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| 2   | Full Name:  | Inventor's Signature:         | Date:   |
|   | Richard Griffey   | Richard Griffey               |         |
|   | Residence:<br>360 Barsby Street<br>Vista, California 92084      | Citizenship:<br>United States |         |
| Post Office Address:<br>360 Barsby Street<br>Vista, California 92084      |   |                               |         |
| 3   | Full Name:  | Inventor's Signature:         | Date:   |
|   | Stanley T. Crooke   | Stanley T. Crooke             | 8/21/98 |
|   | Residence:<br>3211 Piragua Street<br>Carlsbad, California 92009 | Citizenship:<br>United States |         |
| Post Office Address:<br>3211 Piragua Street<br>Carlsbad, California 92009 |   |                               |         |

|   |   |                                   |         |
|---|---|-----------------------------------|---------|
| 4   | Full Name:  | Inventor's Signature:             | Date:   |
|   | Ranga Sampath   | <i>Ranga</i>                      | 8/25/98 |
|   | Residence:<br>12223 MANNIX ROAD<br><del>12180 Ragweed Street</del><br>San Diego, California 92129 | Citizenship:<br><br>India         |         |
| Post Office Address:<br>12223 MANNIX ROAD<br><del>12180 Ragweed Street</del><br>San Diego, California 92129 |   |                                   |         |
| 5   | Full Name:  | Inventor's Signature:             | Date:   |
|   | Eric Swayze   | <i>Eric Swayze</i>                | 8/25/98 |
|   | Residence:<br><br>7789 Palenque Street<br>Carlsbad, California 92009                              | Citizenship:<br><br>United States |         |
| Post Office Address:<br><br>7789 Palenque Street<br>Carlsbad, California 92009                              |   |                                   |         |
| 6   | Full Name:  | Inventor's Signature:             | Date:   |
|   | Venkatraman Mohan   | <i>Venkatraman</i>                | 8/25/98 |
|   | Residence:<br><br>7042 Via Cabana<br>Carlsbad, California 92009                                   | Citizenship:<br><br>India         |         |
| Post Office Address:<br><br>7042 Via Cabana<br>Carlsbad, California 92009                                   |   |                                   |         |

|   |   |   |                  |
|---|---|---|------------------|
| 7 | Full Name:<br><br>Steven Hofstadler   | Inventor's Signature:<br> | Date:<br>8/25/98 |
|   | Residence:<br><br>5014 Viewridge Way<br>Oceanside, California 92056           | Citizenship: United States  |                  |
|   | Post Office Address:<br><br>5014 Viewridge Way<br>Oceanside, California 92056 |   |                  |

DOCKET NO.:

IBIS-0007

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

David J. Ecker, Richard Griffey, Stanley T. Crooke,  
Ranga Sampath, Eric Swayze, Venkatraman Mohan and  
Steven Hofstadler

Serial No.: 09/076,404

Group No.: 1643

Filed: May 12, 1998

Examiner: N/A

For: MODULATION OF MOLECULAR INTERACTION SITES ON RNA AND  
OTHER BIOMOLECULES

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

ASSOCIATE POWER OF ATTORNEY

The undersigned, **Paul K. Legaard**, Registration No.

**38,534**, of the firm WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS  
LLP, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania  
19103, Attorney and/or Agent for Applicant(s), hereby appoints  
the following:

|                        |                         |
|------------------------|-------------------------|
| Robert B. Washburn     | Registration No. 16,574 |
| Richard E. Kurtz       | Registration No. 19,263 |
| John J. Mackiewicz     | Registration No. 19,709 |
| Norman L. Norris       | Registration No. 24,196 |
| Albert W. Preston, Jr. | Registration No. 25,366 |
| Dale M. Heist          | Registration No. 28,425 |
| Philip S. Johnson      | Registration No. 27,200 |
| John W. Caldwell       | Registration No. 28,937 |
| Gary H. Levin          | Registration No. 28,734 |
| Steven J. Rocci        | Registration No. 30,489 |
| Dianne B. Elderkin     | Registration No. 28,598 |
| Francis A. Paintin     | Registration No. 19,386 |
| John P. Donohue, Jr.   | Registration No. 29,916 |
| Henrik D. Parker       | Registration No. 31,863 |
| Suzanne E. Miller      | Registration No. 32,279 |
| Lynn B. Morreale       | Registration No. 32,842 |


|                       |                         |
|-----------------------|-------------------------|
| Mark DeLuca           | Registration No. 33,229 |
| Joseph Lucci          | Registration No. 33,307 |
| Michael P. Dunnam     | Registration No. 32,611 |
| Michael D. Stein      | Registration No. 34,734 |
| Albert J. Marcellino  | Registration No. 34,664 |
| David R. Bailey       | Registration No. 35,057 |
| Barbara L. Mullin     | Registration No. 38,250 |
| Lynn A. Malinoski     | Registration No. 38,788 |
| Lori Y. Beardell      | Registration No. 34,293 |
| Doreen Yatko Trujillo | Registration No. 35,719 |
| Michael P. Straher    | Registration No. 38,325 |
| Kevin M. Flannery     | Registration No. 35,871 |
| David A. Cherry       | Registration No. 35,099 |
| Anthony J. Rossi      | Registration No. 24,053 |
| Michael J. Swope      | Registration No. 38,041 |
| Michael J. Bonella    | Registration No. 41,628 |
| Harold H. Fullmer     | Registration No. 42,560 |
| John E. McGlynn       | Registration No. 42,863 |
| Kimberly R. Hild      | Registration No. 39,224 |
| Lawrence A. Aaronson  | Registration No. 38,369 |
| Jonathan M. Waldman   | Registration No. 40,861 |
| Joseph R. Condo       | Registration No. 42,431 |
| Michael K. Jones      | Registration No. 41,100 |
| Frank T. Carroll      | Registration No. 42,392 |
| Steven H. Meyer       | Registration No. 37,189 |

and

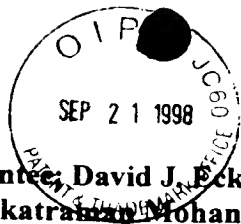
|                  |                         |
|------------------|-------------------------|
| Herb Boswell     | Registration No. 27,311 |
| Laurel Bernstein | Registration No. 37,280 |

of **ISIS PHARMACEUTICALS**, 2292 Faraday Avenue, Carlsbad, California 92008; his associates, with full power to prosecute the above-identified application and to transact all business in the Patent Office connected therewith and requests that correspondence continue to be directed to the firm of WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP at the above address.

Date: September 17, 1998

  
Paul K. Legaard  
 Attorney and/or Agent of Record  
 Registration No. 38,534

WOODCOCK WASHBURN KURTZ  
 MACKIEWICZ & NORRIS LLP  
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 Philadelphia, PA 19103  
 (215) 568-3100



Applicant or Patentee: **David J. Ecker, Richard Griffey, Stanley T. Crooke, Ranga Sampath, Eric Swayze, Venkatraman Mohan and Steve Hofstadler**

Serial No.: 09/076,404

Attorney's Docket No.: IBIS-0007

Date Filed: May 12, 1998

For: **MODULATION OF MOLECULAR INTERACTION SITES ON RNA AND OTHER BIOMOLECULES**

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) and 1.27(c) - SMALL BUSINESS CONCERN)**

I hereby declare that I am:

- ☐ the owner of the small business concern identified below:
- ☒ an official empowered to act on behalf of the concern identified below:

**NAME OF CONCERN:**

ISIS Pharmaceuticals, Inc.

**ADDRESS OF CONCERN:**

2292 Faraday Avenue

Carlsbad, CA 92008

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.12, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that: (1) the number of employees of the concern, including those of its affiliates, does not exceed 500 persons; and (2) the concern has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section.

For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled **MODULATION OF MOLECULAR INTERACTION SITES ON RNA AND OTHER BIOMOLECULES** by inventor(s) **David J. Ecker, Richard Griffey, Stanley T. Crooke, Ranga Sampath, Eric Swayze, Venkatraman Mohan and Steve Hofstadler** described in

☐ specification filed herewith.

☒ application serial no. 09/076,404, filed May 12, 1998.



( ) patent no. \_\_\_\_, issued \_\_\_\_.

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

**\*NOTE: Separate verified statements are required for each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)**

**FULL NAME:**

**ADDRESS:**

( ) **INDIVIDUAL** ( ) **SMALL BUSINESS CONCERN** ( ) **NONPROFIT ORGANIZATION**

**FULL NAME:**

**ADDRESS:**

( ) **INDIVIDUAL** ( ) **SMALL BUSINESS CONCERN** ( ) **NONPROFIT ORGANIZATION**

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

**NAME OF PERSON SIGNING**  
**TITLE OF PERSON SIGNING**  
**ADDRESS OF PERSON SIGNING**

**B. Lynne Parshall, Esq.**  
**Executive Vice President**  
**2292 Faraday Avenue**  
**Carlsbad, CA 92008**

  
\_\_\_\_\_  
**SIGNATURE**

  
\_\_\_\_\_  
**DATE**